



DoD Global Influenza and Other Respiratory Viral Pathogens Week 2 (9 Jan – 15 Jan) Weekly Surveillance Report



Number of new isolates for Week 2: **15 Influenza A**

The new influenza A isolates consist of 3 from RAF Lakenheath, UK and 3 from Wilford Hall Medical Center, TX; 2 from McGuire AFB, NJ and 2 from USAF Academy, CO; and 1 each from NAB Little Creek, VA; Maxwell AFB, AL; Barksdale AFB, LA; Goodfellow AFB, TX; and Buckley AFB, CO.

In addition, 18 other influenza A isolates were newly identified during Week 2, but were collected prior to that week: 4 from RAF Lakenheath, UK and 4 from NMRC-D, Peru; 2 from McGuire AFB, NJ and 1 each from Ft Drum, NY; Maxwell AFB, AL; Wilford Hall Medical Center, TX; Elmendorf AFB, AK; Buckley AFB, CO; Aviano AB, Italy; Andersen AFB, Guam; and 121st Army Hosp, Korea. Four influenza B isolates were newly identified/previously collected: 1 each from McGuire AFB, NJ; Maxwell AFB, AL; and USAF Academy, CO.

We have also received 3 influenza A isolates and 1 influenza B isolate from Landstuhl RMC, Germany, for subtyping. We should have the subtyping results by the next report.

COMMENTS ON CURRENT TRENDS:

Mirroring national trends, our number of influenza isolates for January continues to grow. Based on patterns seen in previous flu seasons, influenza cases will likely peak in January or February, as is typical for most years. The 2003-2004 influenza season was unusual in that it peaked in December. Thus, the fact that influenza activity this season has been relatively low up to January should not be taken as a predictor for the remainder of the season.

Many of the recently diagnosed influenza isolates were submitted by bases in regions with "widespread" influenza activity as tracked by the CDC. For example, bases located in the West South Central CDC region (including Texas and Oklahoma) had an increase from 0 to 4-5 isolates for the past 3 weeks (see regional chart at end of report). The increase in influenza is consistent with a recent designation of widespread influenza activity in Texas by the CDC.

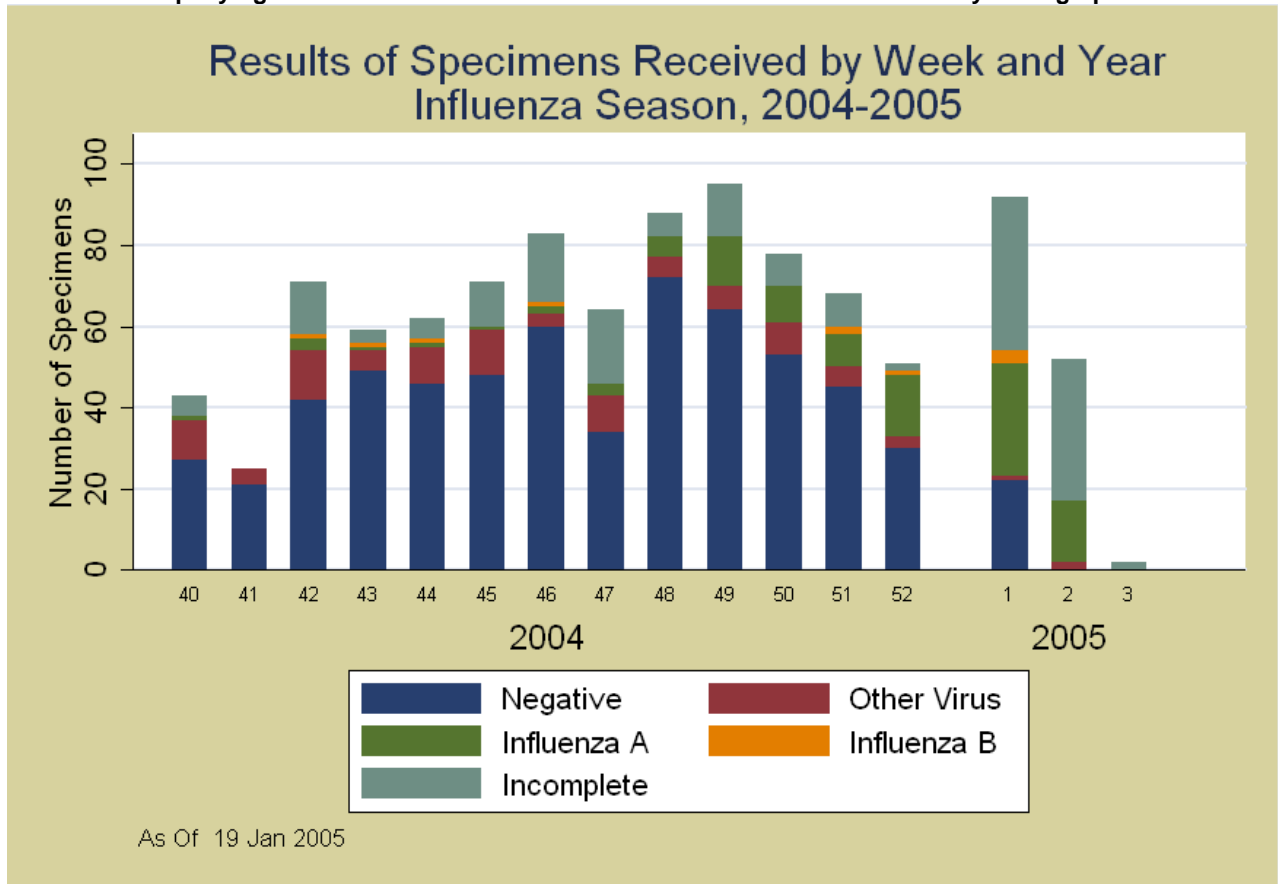
Influenza A/H3N2 has been the predominant type and subtype. Sequencing done by our laboratory indicate a good match with the vaccine strain this season, in contrast to concerns about vaccine mismatch last season.

SUMMARY:

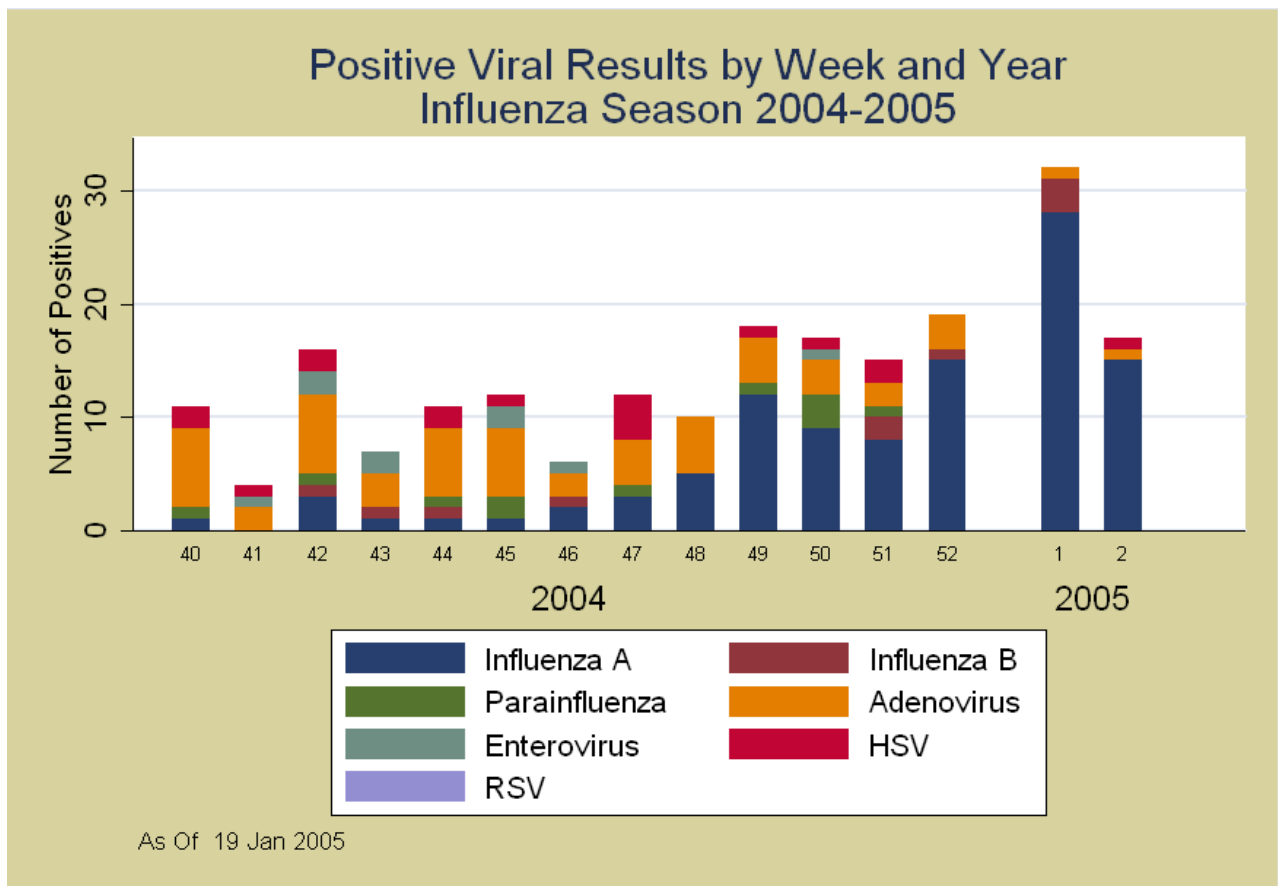
Since **3 October 2004**, the Epidemiological Surveillance Division (AFIOH/SDE) has processed 822 specimens as part of the influenza surveillance program. Of those specimens, 104 (13%) were positive for influenza A, and 10 (1%) were positive for influenza B.

In addition, 184 specimens are still being processed, the majority from a large batch shipment from NMRC-D, Peru (hence the presence of incomplete specimens ranging back to Week 40).

See the accompanying table in the “Additional Information” section for breakdown by demographics.



OVERALL DOD RESPIRATORY VIRAL SURVEILLANCE:

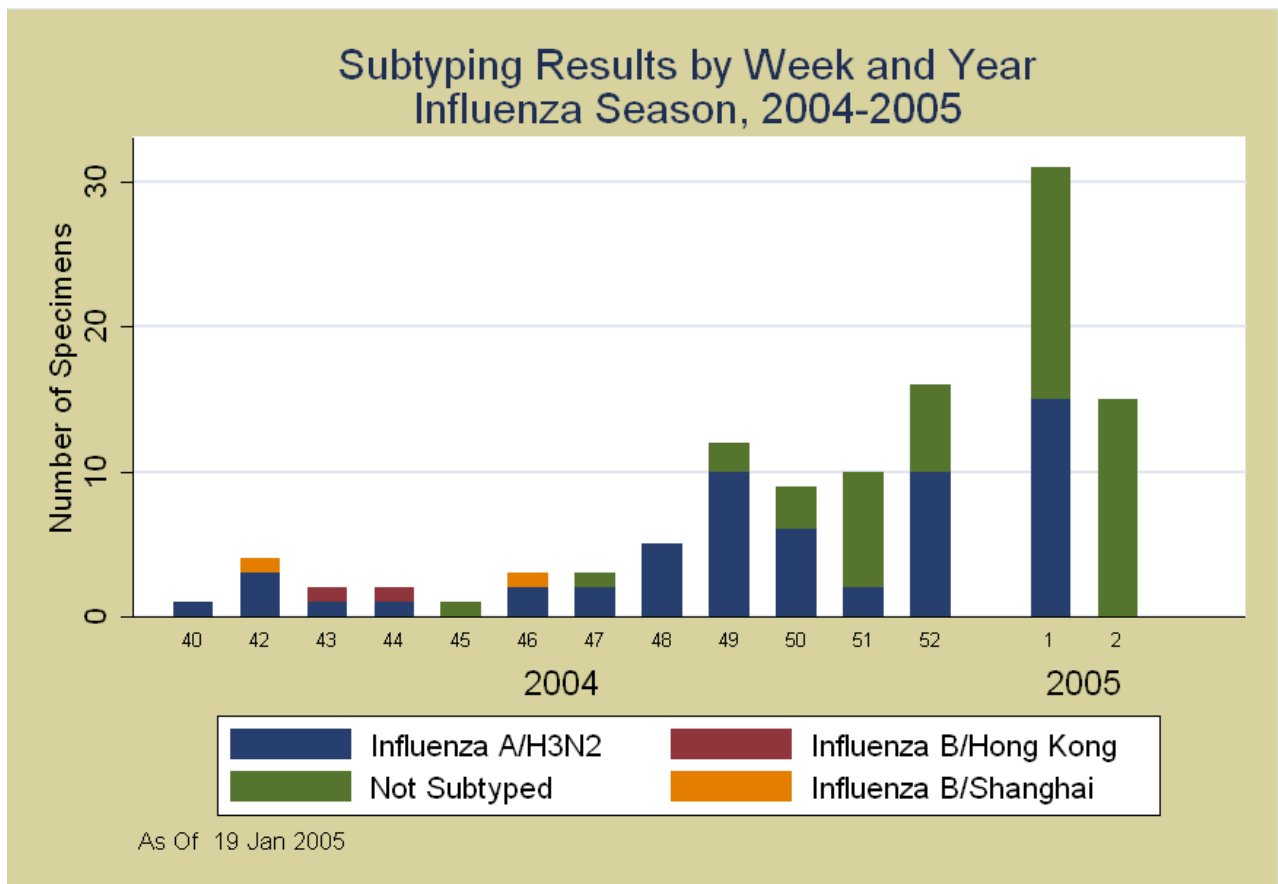


Note: Graphs do not include data from the NHRC, which conducts Febrile Respiratory Illness (FRI) surveillance among recruit populations. NHRC compiles this data into a separate report. For more information, visit the NHRC website at <http://www.nhrc.navy.mil/geis/>

SUBTYPING:

Since **3 October 2004**, we have subtyped 62 isolates using either polymerase chain reaction (PCR) or hemagglutination-inhibition (HI): 58 are Influenza A/H3N2, 2 are Influenza B/Hong Kong, and 2 are Influenza B/Shanghai. The following graph summarizes overall subtyping results. Subtyping results for individual bases can be found on the AFIOH Influenza Surveillance website:

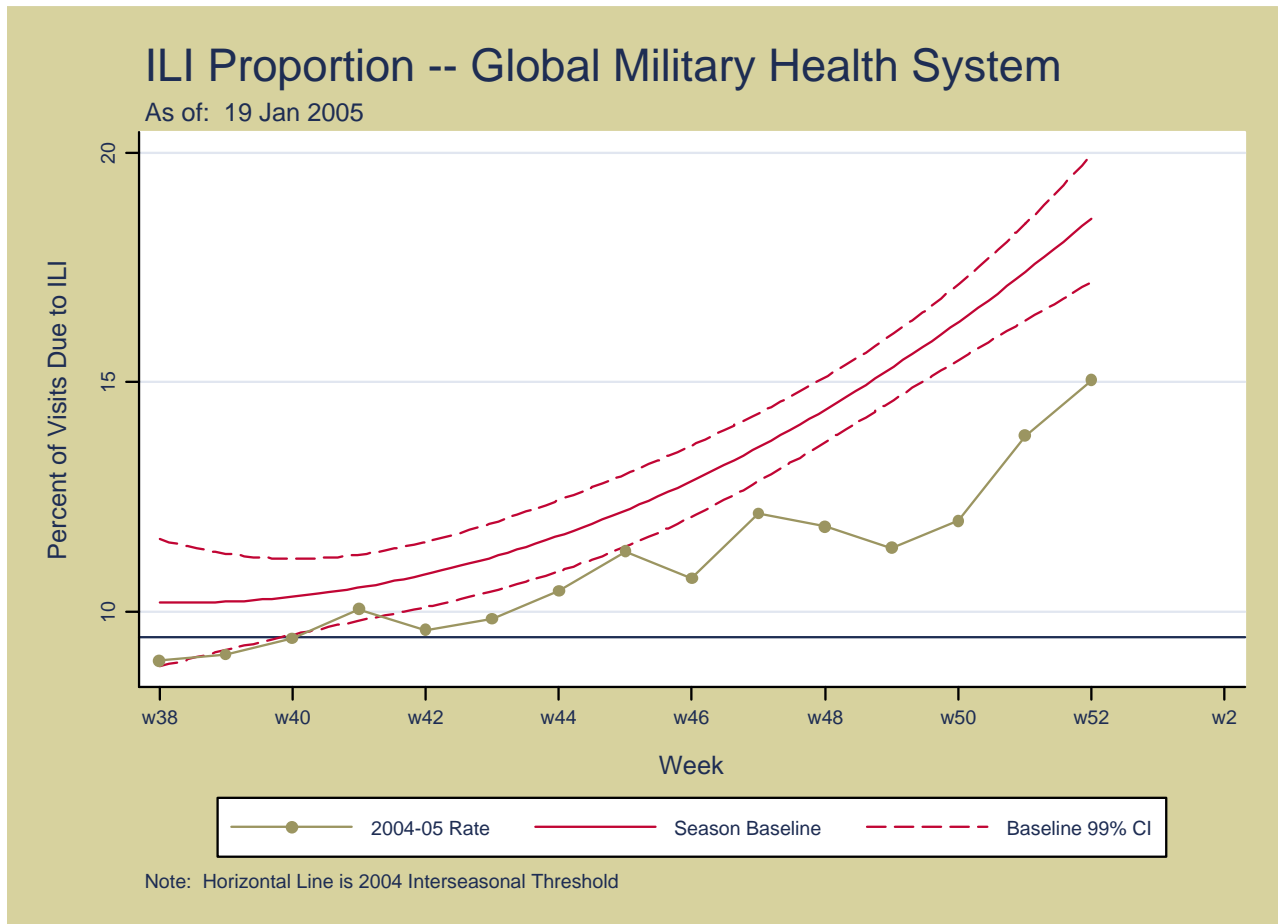
<https://gumbo.brooks.af.mil/pestilence/Influenza/>



INFLUENZA-LIKE ILLNESS:

This graph plots the percentage of weekly outpatient visits at military installations that had an ICD-9 code correlating with Influenza-Like Illness as defined by ESSENCE. Visit and coding data were taken from ESSENCE. A seasonal baseline and 99% confidence intervals are included for comparison. The baseline was calculated from ESSENCE data for the previous 2 years. Note that the ESSENCE definition for Influenza-Like Illness differs from the CDC definition. See our website for a detailed explanation.

Note: ESSENCE ILI data has not been updated since Week 52, 2004. A new version of ESSENCE is currently being implemented into our procedures. We hope to have updated ILI data as soon as transition to the new ESSENCE program is complete.



Graphs for individual bases and regions can be found on the AFIOH Influenza Surveillance website:
<https://gumbo.brooks.af.mil/pestilence/Influenza/ILChartsform.cfm>

NATIONAL INFLUENZA ACTIVITY: CDC

<http://www.cdc.gov/ncidod/diseases/flu/weeklychoice.htm>

During week 1 (the latest report available), CDC reported continued increasing influenza activity, mostly in the eastern United States. Laboratory surveillance identified 510 specimens (16.8%) positive for influenza. Of these, 1 was influenza A (H1N1), 69 were influenza A (H3N2), 383 were influenza A viruses that were not subtyped, and 57 were influenza B. Eight states and New York City reported widespread influenza activity, 12 states reported regional influenza activity, and 10 states reported local activity. Twenty states, the District of Columbia, and Puerto Rico reported sporadic influenza activity.

INTERNATIONAL INFLUENZA ACTIVITY: WHO

<http://www.who.int/GlobalAtlas/DataQuery/home.asp>

Week in review: **Week 2**

South America: No activity reported.

Asia: China reported sporadic activity.

Europe: Bulgaria, France, Latvia, Turkey, and Ukraine reported sporadic activity. Belgium reported a local outbreak.

North America: No activity reported.

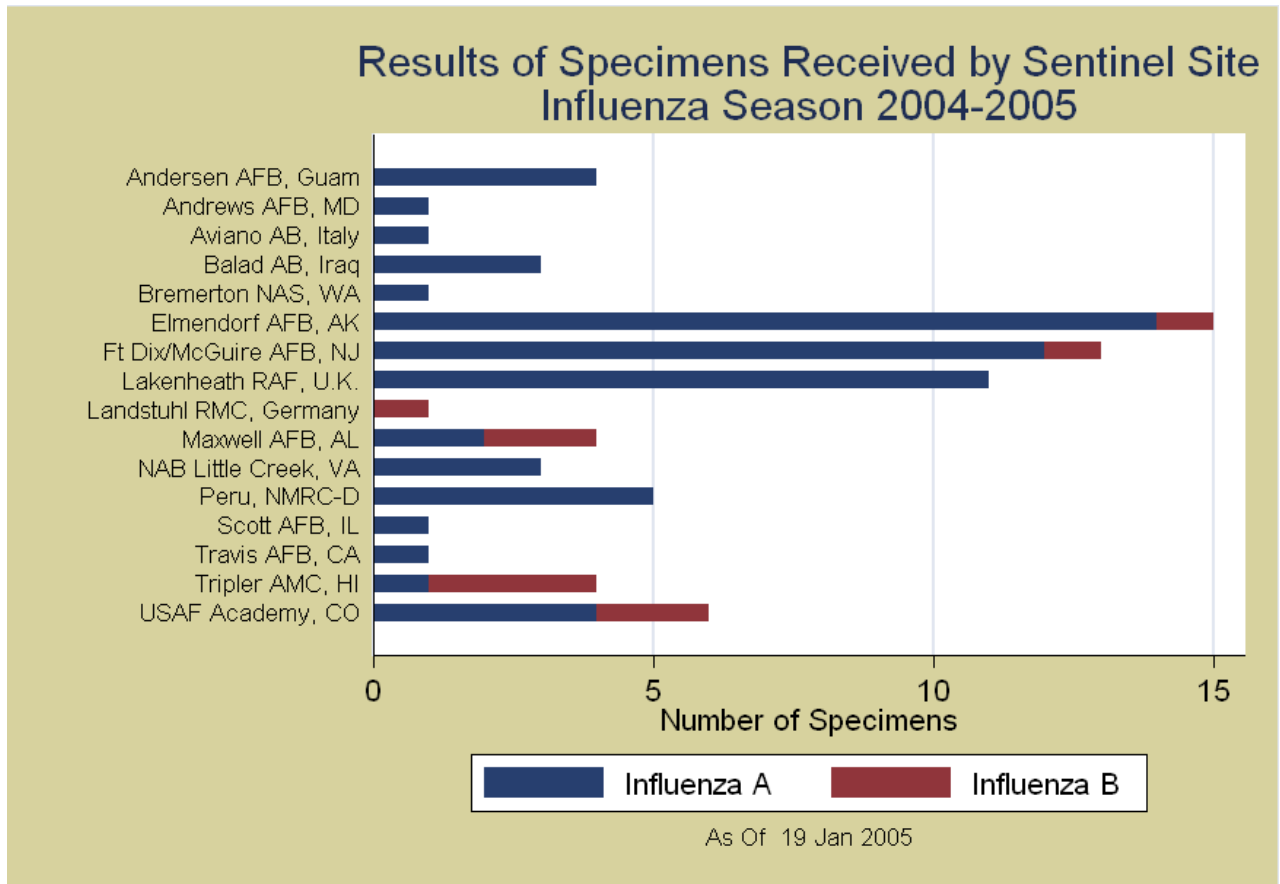
Africa: No activity reported.

ADDITIONAL INFORMATION:

- **Avian Influenza Update:** Two new cases of influenza H5N1 have been reported in Viet Nam; patients are women aged 18 and 35 years. The 18-year-old was hospitalized on January 1, 2005, and died on January 10. The 35-year-old was hospitalized on January 9 and remains in critical condition. These cases bring the total, reported since mid-December 2004, to six. Of these, four have died. (Reported by the WHO on 14 January 2005)

Please direct any questions or comments to: influenza@brooks.af.mil

SENTINEL SITE GRAPH



Numbers and graphs for individual bases can be found on the AFIOH Influenza Surveillance website:
<https://gumbo.brooks.af.mil/pestilence/Influenza/T>

Tables 1 and 2. Respiratory Specimens Submitted by Sentinel Sites, and by Overseas Laboratories since October 3, 2004

SENTINEL SITE	Specimens Submitted
Al Udeid AB, Qatar	1
Andersen AFB, Guam	9
Andrews AFB, MD	6
Aviano AB, Italy	5
Balad AB, Iraq	7
Bremerton NS, WA	5
CGS Ketchikan, AK	0
Elmendorf AFB, AK	36
Ft. Dix/McGuire AFB, NJ	29
Ganci AB, Kyrg	0
Incirlik AB, Turkey	11
Kadena AB, Japan	1
Kunsan AB, Korea	5
RAF Lakenheath, UK	70
Landstuhl RMC, Germany	1
Maxwell AFB, AL	27
Misawa AB, Japan	21
NAB Little Creek, VA	12

SENTINEL SITE	Specimens Submitted
NS Pearl Harbor/Hickam, HI	0
NH Yokosuka, Japan	5
NMC San Diego, CA	5
Osan AB, Korea	4
Ramstein AB, Germany	17
Scott AFB, IL	98
Sheppard AFB, TX	129
Travis AFB, CA	15
Tripler AMC, HI	7
US Air Force Academy, CO	13
Yokota AB, Japan	10
TOTAL for SENTINEL SITES	549

OVERSEAS LAB	Specimens Submitted
AFRIMS, Thailand	0
AFRIMS, Nepal	0
NMRC-D, Peru	89
NMRC-D, Nicaragua	0
TOTAL for OVERSEAS LABS	89

Table 3. Summary of Results of Recently Processed Specimens

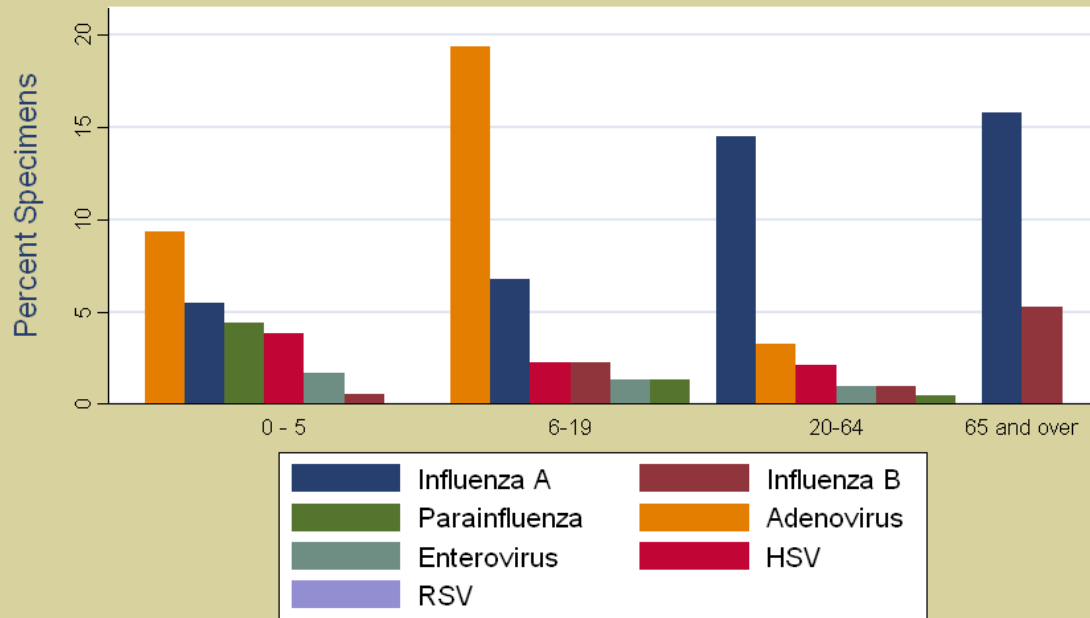
Location	Results of Specimens Processed during current week*				
	Negative	Influenza A	Influenza B	Adenovirus	Other
ALL SITES	122	57	4	9	10**
NORTH AMERICA	40	33	3	2	2
PACOM	5	4	0	0	0
EUCOM	13	11	1	2	0
CENTCOM	4	3	0	0	0
SOUTH AMERICA	60	6	0	5	8

Comments: * Specimens were **received** in months of December and January. Influenza A and B totals include recent subtyping results.

** 2 Parainfluenza, 6 HSV, 2 Enterovirus

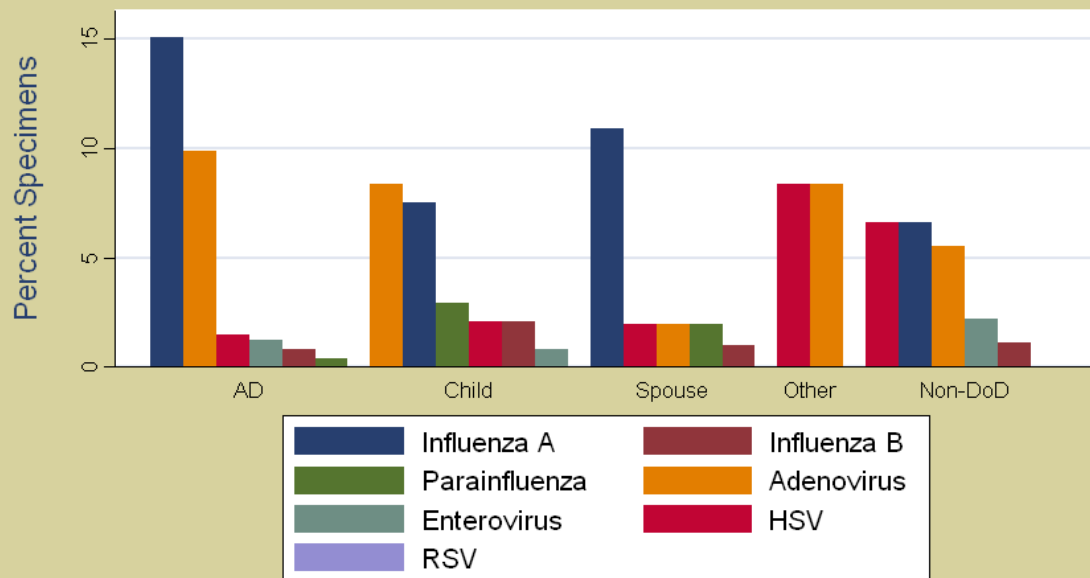
DEMOGRAPHIC GRAPHS

Percent of Respiratory Virus Submissions by Age Group
Influenza Season 2004-2005



As of 19 Jan 2005

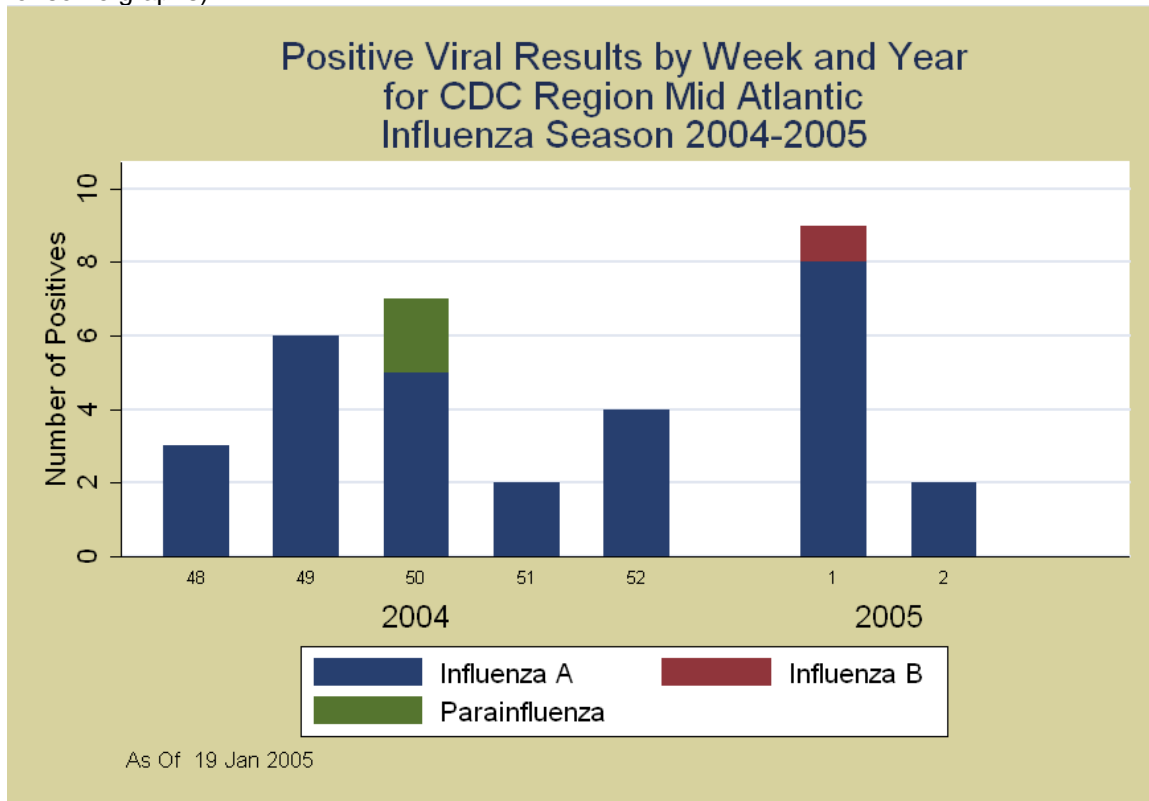
Percent of Respiratory Virus Submissions
by Family Military Prefix
Influenza Season 2004-2005



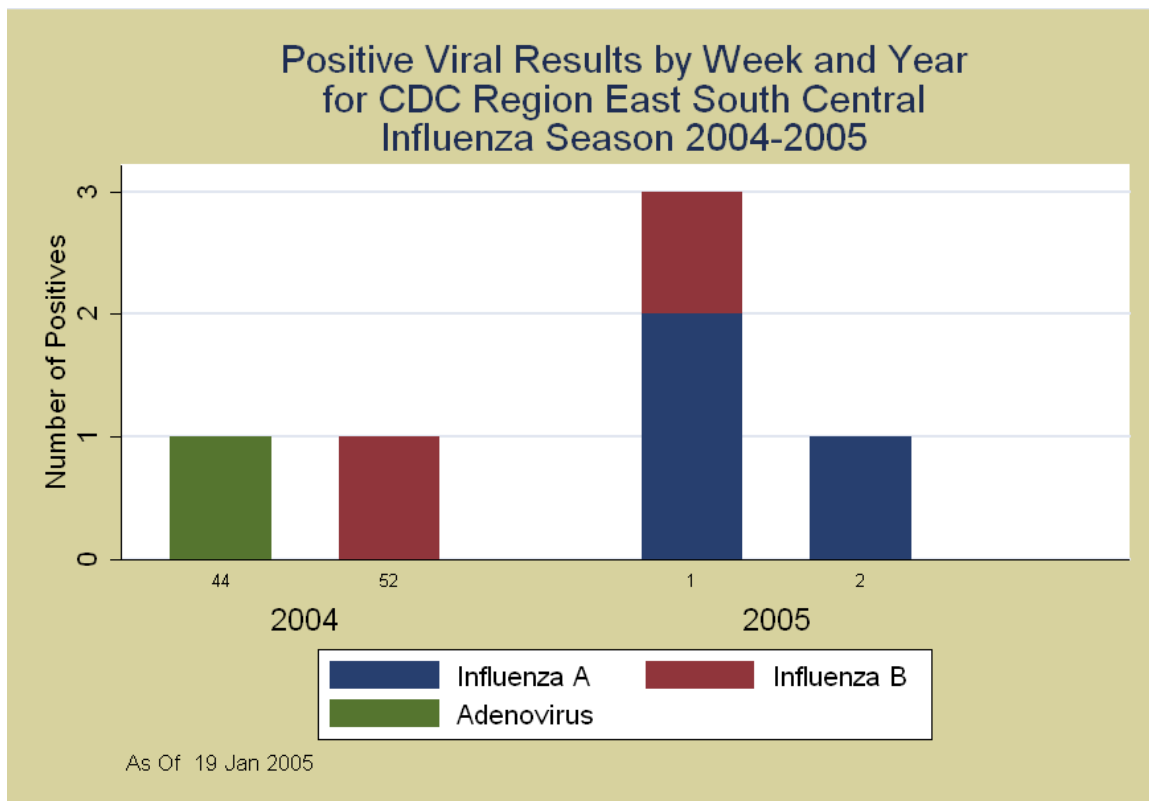
As of 19 Jan 2005

CDC REGIONAL GRAPHS

(Not all regional graphs are included because numbers of specimens are small or only 1 week is present for some graphs)

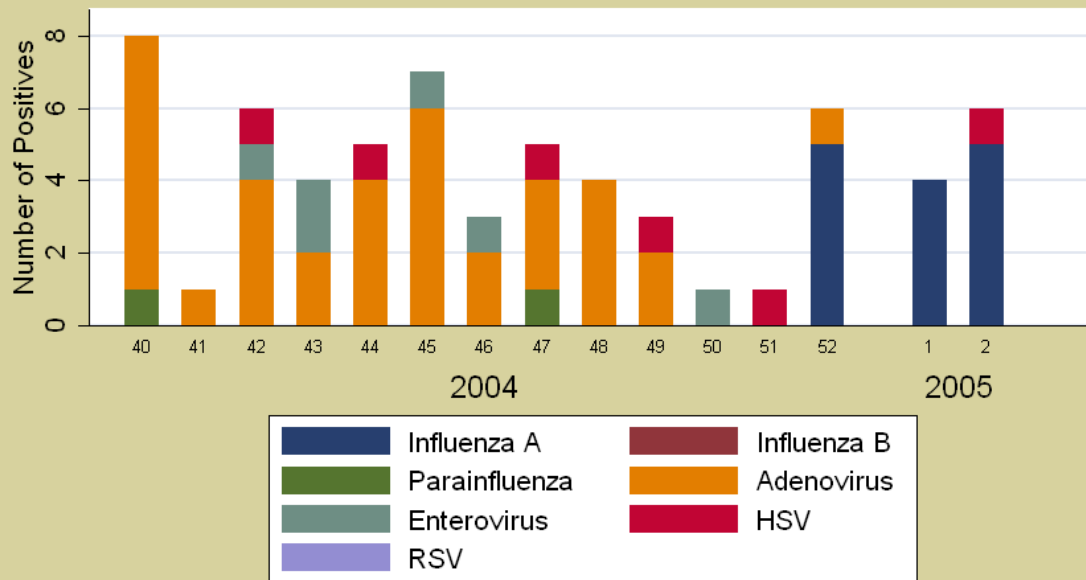


Results from Ft Drum, NY and Ft.Dix/McGuire AFB, NJ



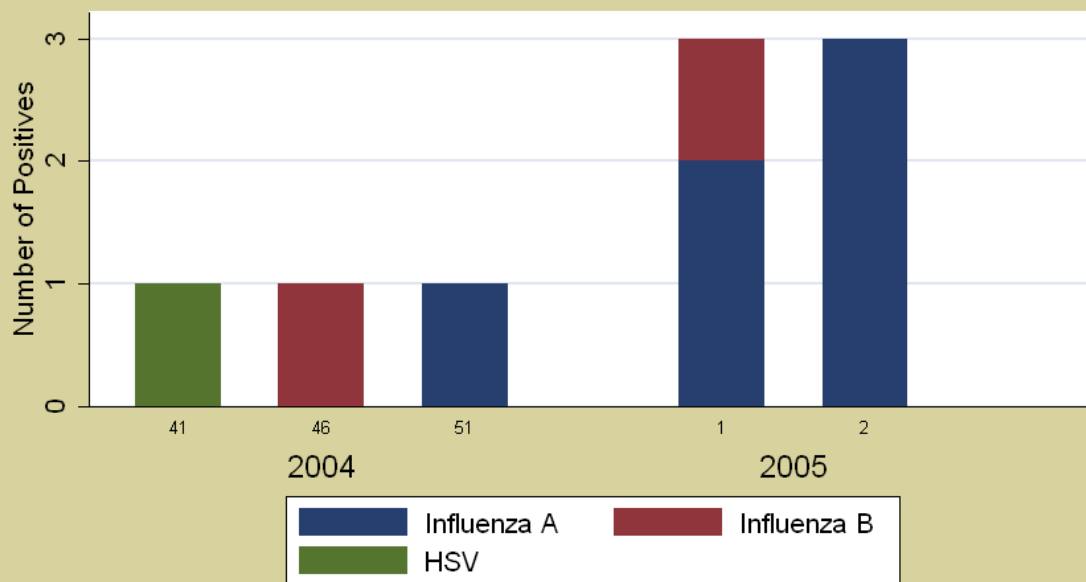
Results from Maxwell AFB, AL

Positive Viral Results by Week and Year for CDC Region West South Central Influenza Season 2004-2005

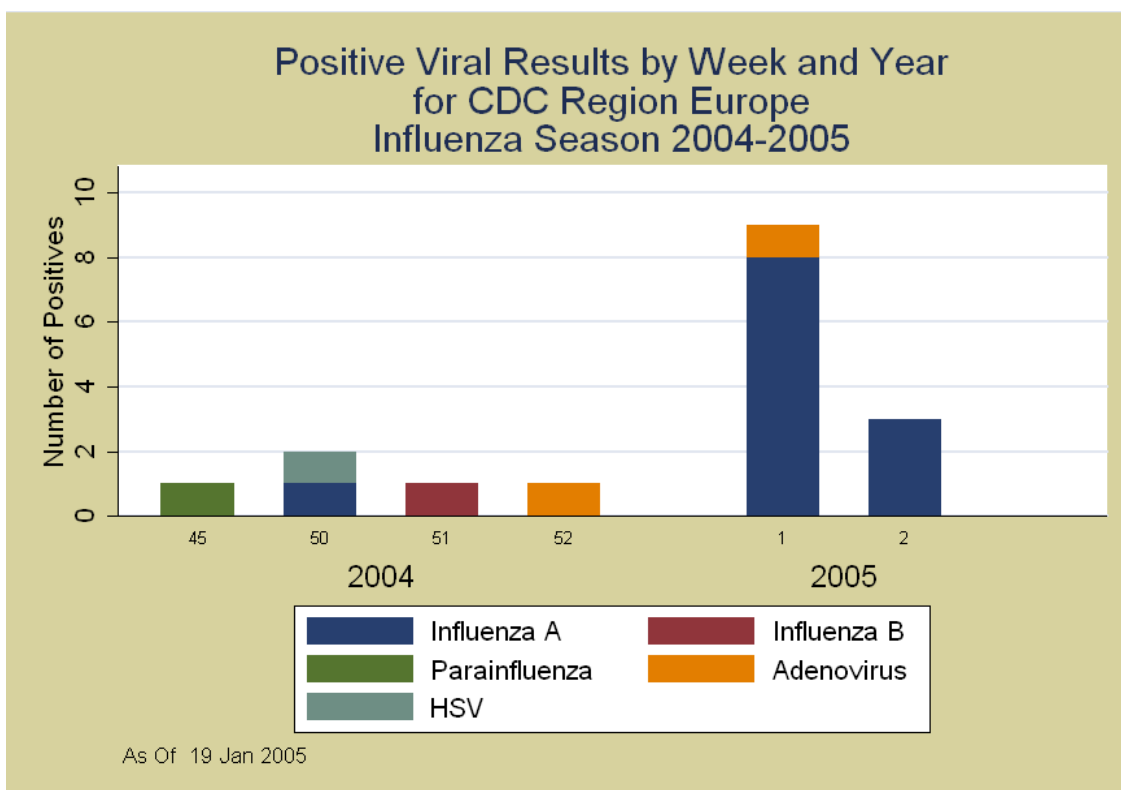


Results from Altus AFB, OK; Tinker AFB, OK; Sheppard AFB, TX; Corpus Christi, TX; and Lackland AFB, TX

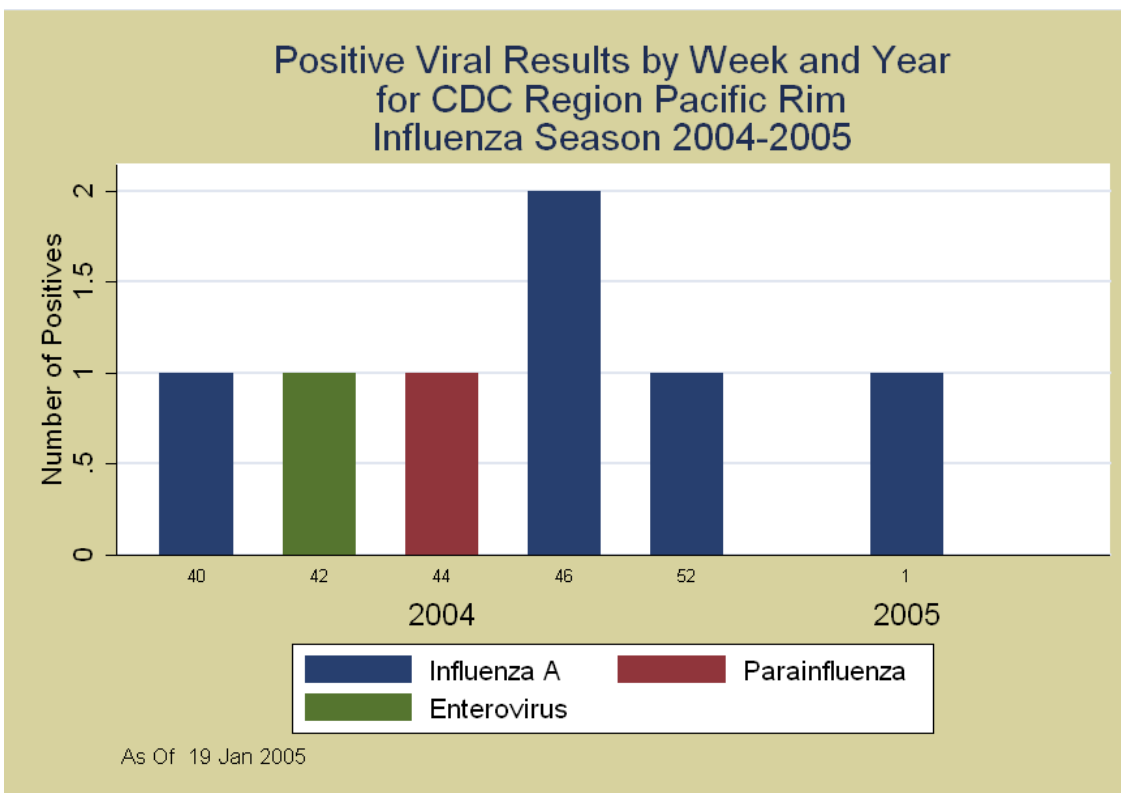
Positive Viral Results by Week and Year for CDC Region Mountain Influenza Season 2004-2005



Results from USAF Academy, CO and Buckley AFB, CO



Results from RAF Lakenheath, UK; Landstuhl RMC, Germany; and Ramstein AB, Germany



Specimens from Andersen AFB, Guam; Misawa AB and Yokota AB in Japan; and 121st Army Hosp, Korea